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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTOPH BRABEC

Appeal 2009-008774
Application 10/522,862
Technology Center 1700

Before TERRY J. OWENS, PETER F. KRATZ, and MARK NAGUMO, *Administrative Patent Judges*.

NAGUMO, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

A. Introduction[2]

Christoph Brabec ("Brabec") timely appeals under 35 U.S.C. § 134(a) from the final rejection[3] of claims 1-20, which are all of the pending claims. We have jurisdiction under 35 U.S.C. § 6. We AFFIRM.

The subject matter on appeal relates to an integrated circuit card having an integrated energy converter that comprises a photovoltaically active polymeric compound. Cards having 'low information' data storage, integrated transponders, or integrated display units are said to require such energy supplies. But, according to the 862 Specification, suitable, cheap, and readily manufactured energy supplies are not available. (Spec. 1.)

Representative Claim 1 reads:

> 1. A chip card comprising
>
> > an energy converter that occupies either a portion or an entire surface area of the chip card, so that an energy supply of the chip card is integratedly present thereon,
> >
> > wherein the energy converter comprises a photovoltaically active polymeric compound.

(Claims App., Br. 9; indentation added.)

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[2] Application 10/522,862, *Chip Card Comprising an Integrated Energy Converter*, filed 6 September 2005, as the National Stage of an international application filed 22 July 2003, claiming the benefit of a German application filed 8 August 2002. The specification is referred to as the "862 Specification," and is cited as "Spec." The real party in interest is listed as Konarka Technologies, Inc. (Appeal Brief, filed 4 November 2008 ("Br."), 1.)

[3] Office Action communicated 9 July 2008 ("Final Rejection"; cited as "FR").

The Examiner has maintained the following grounds of rejection:[4]

A. Claims 1-4, 8-14, and 18 stand rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Ou[5] and Loutfy.[6]

B. Claims 5, 6, 15, and 17 stand rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Ou, Loutfy, and Hirano.[7]

C. Claims 6 and 16 stand rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Ou, Loutfy, and Han.[8]

D. Claims 7 and 19 stand rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Ou, Loutfy, and Phillips.[9]

E. Claim 13 stands rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Ou and Loutfy.

F. Claim 20 stands rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Ou, Loutfy, and Suzuki.[10]

The issue dispositive of this case is the meaning of the term "polymeric compound," as used in the claims.

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[4] Examiner's Answer mailed 4 February 2009. ("Ans.").

[5] Chi-Yuan Ou, *IC Card with Display Screen*, U.S. Patent Application Publication US 2002/0088863 A1 (11 July 2002).

[6] Rafik O. Loutfy et al., *Photovoltaic Cell*, U.S. Patent 4,175,982 (1979).

[7] Taizö Hirano, U.S. Patent 4,104,083 (1978).

[8] Liyuan Han and Ryosuke Yamanaka, JP 2001-203377 (27 July 2001) (referred to by the Examiner and by Brabec as "Kan").

[9] John Quentin Phillipps, GB 2,320,356 A (1998).

[10] Hideo Suzuki, U.S. Patent 4,801,787 (1989).

Brabec contends only that the Examiner failed to establish a prima facie case of obviousness because the metal-free phthalocyanine disclosed by Loutfy as a photovoltaically active compound, on which the Examiner relies exclusively for prior art disclosure of a photovoltaically active polymeric compound for an energy converter, is not a polymeric compound, as that term is used in the claims and understood by persons having ordinary skill in the relevant arts. (Br. 2-5.)

The Examiner maintains that the 862 Specification does not specifically define the term "polymeric compound," and that the definitions provided for the term "polymer" do not exclude oligomeric material or small molecules. (Ans. 10-11.) As a result, according to the Examiner, the broadest reasonable interpretation of the claims, read in light of the supporting disclosure, is that the term "polymeric compound" reads on the metal-free phthalocyanine disclosed by Loutfy as a photoactive material.

B. Discussion

Findings of fact throughout this Opinion are supported by a preponderance of the evidence of record.

During examination of an application for patent, our reviewing court has instructed that

> the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification.

In re Morris, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

It is beyond question that definitions in the specification control over definitions that might be found in dictionaries or in other disclosures in the art. As the Federal Circuit put the matter, "the inventor may be his own lexicographer, and may use common words in uncommon ways, provided only that the intended meaning is clear." *In re Dance*, 160 F.3d 1339, 1344-45 (Fed. Cir. 1998).

As the Examiner found, there is no express definition of the term "photovoltaically active polymeric compound" in the 862 Specification—indeed, the term is not even present in the Specification or in the original claims. The closest term appears to be in the sentence, "Due to the ability to make a polymer solar cell out of *photovoltaically active dyes/functional polymers*, a chip card can be printed and inscribed with a polymer solar cell instead of printing ink." (Spec. 2, 4th full para.; emphasis added.) This sentence, by itself, does not illuminate the meaning of the critical term used in claim 1.

The critical disclosure in the three-page 862 Specification (counting the claims and the abstract as a single page) is the following paragraph, which is reproduced in full:

> The terms "polymer" in "polymer solar cell," "organic material," and "functional polymer" herein encompass all types of organic, metalorganic and/or organic/inorganic synthetics and composites (hybrids) that are photovoltaically active. They signify, for example, all those denoted in English by terms such as "plastics." This includes all types of materials except for the semiconductors that form conventional diodes (germanium, silicon) and typical metallic conductors. Hence, there is no intended limitation in the dogmatic sense to organic material as carbon-containing

> material, but rather, the broadest use of silicones, for example, is also contemplated. Furthermore, *the terms are not intended to be subject to any limitation with respect to molecular size, particularly to polymeric and/or oligomeric materials, but instead the use of "small molecules" is completely feasible as well.* The word "polymer" in "functional polymer" is historically derived and makes no statement as to the presence of any actual polymeric compound. "Functional polymers" can mean semiconducting, conducting and/or insulating materials.

(Spec. 2, first full para.; emphasis added.)

We do not find persuasive Brabec's attempt to dissociate the term "polymeric compound" from the broad definition given by the supporting 862 Specification to the root term "polymer." The only express exclusions from the term "polymer" are conventional semiconductors and "typical metallic conductors." The 862 Specification, in the passage quoted *supra*, expressly includes "small molecules" and "oligomers" as being within the scope of the terms "polymer solar cell" and "functional polymer." The only requirement is that the "organic material" be photovoltaically active. The 862 Specification emphasizes that "the use of 'small molecules' is completely feasible as well." (Spec. 2.)

Substituting the term "photovoltaically active polymeric compound" for the term "photovoltaically active dyes/functional polymers," with the intent of excluding small molecules, is at best an exercise in circular reasoning. The weight of the term "functional polymer," which the 862 Specification specifically states "makes no statement as to the presence of any actual polymeric compound," begs the question of what sorts of molecules are included by the term "polymer." In the words of

the 862 Specification, the term "polymer" is "not intended to be subject to any limitation with respect to molecular size . . . the use of 'small molecules is completely feasible as well."

We therefore reject Brabec's claim interpretation as being inconsistent with the originally filed specification.

The Examiner's reliance on Achar[11] as support for phthalocyanine being regarded as a polymer in the conventional sense is misguided. Brabec correctly points out (Reply 3)[12] that Achar discusses only polymers of phthalocyanine-containing monomers and that Achar cannot be read as referring to phthalocyanines as polymers. The Examiner's error, however, is harmless because Brabec fully comprehends the Examiner's position,[13] and because claim 1, properly interpreted in light of the supporting disclosure, supports the Examiner's position.

Had the Examiner read the claims in a vacuum, without benefit of the teachings of the 862 Specification, we have no doubt that the Examiner would not have interpreted the "photovoltaically active polymeric component" recited in claim 1 as encompassing a small molecule made from four monomers. Such an interpretation, however congruent with "common understanding," would have been legal error, as it would have ignored the teachings of the 862 Specification.

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[11] Bappalige N. Achar et al., U.S. Patent 4,649,189 (1987), cited during prosecution in the Advisory Action mailed 5 August 2008.

[12] Reply Brief, filed 11 February 2009 ("Reply").

[13] *See* Br. 4, discussing, although not conceding, that phthalocyanine is made up of four monomeric repeating units.

The Federal Circuit has emphasized that the linguistic freedom of defining common terms in uncommon ways is not free of responsibilities:

> We decline to attempt to harmonize the applicants' interpretation with the application and prior art. Such an approach puts the burden in the wrong place. It is the applicants' burden to precisely define the invention, not the PTO's. *See* 35 U.S.C. § 112 ¶ 2 ("The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.").

Morris, 127 F.3d at 1056. *See also* (regarding the construction of a patented claim) *Hoganas AB v. Dresser Indus., Inc.*, 9 F.3d 948, 951 (Fed. Cir. 1993) (if the patentee, "who was responsible for drafting and prosecuting the patent, intended something different, it could have prevented this result through clearer drafting.")

Brabec has not raised any additional issues as resulting in harmful error regarding the rejection of any of the remaining claims. Hence, all claims fall with claim 1.

C. Order

We AFFIRM the rejection of claims 1-4, 8-14, and 18 under 35 U.S.C. § 103(a) in view of the combined teachings of Ou and Loutfy.

We AFFIRM the rejection of claims 5, 6, 15, and 17 under 35 U.S.C. § 103(a) in view of the combined teachings of Ou, Loutfy, and Hirano.

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We AFFIRM the rejection of claim 13 under 35 U.S.C. § 103(a) in view of the combined teachings of Ou and Loutfy.

We AFFIRM the rejection of claim 20 under 35 U.S.C. § 103(a) in view of the combined teachings of Ou, Loutfy, and Suzuki.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

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